



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE: August 2, 2016

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald 
Region III ESAT PO (3EA22)

TO: Greg Ham
On-Scene Coordinator

Attached is the organic data validation report for the American Plating site for Case/DAS# R34931; SDG#460-115398-1 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc:  (b) (4) (WESTON)
(WESTON)

TO: #0002 TDF: #0616058

OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE



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ICF International
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3011

DATE: July 06, 2016

TO: (b) (4)
ESAT Region 3 Project Officer

FROM: (b) (4)
Data Reviewer

(b) (4)
Oversight Chemist

SUBJECT: Organic Data Validation (S4VM)
Site: American Plating
Case: R34931, SDG: 460-115398-1

OVERVIEW

Case R34931, Sample Delivery Group (SDG) 460-115398-1, consisted of three (3) water samples analyzed for volatile compounds. Analyses were performed by TestAmerica Edison (TAIE) in a manner consistent with EPA Method 624.

SUMMARY

Data were validated with guidance from organic National Functional Guidelines, and have been assigned the Superfund Data Validation Label S4VM (Stage_4_Validation_Manual).

Samples were submitted to the laboratory directly by the contractor and not through the EPA Technical Services Branch (TSB). Environmental Services Assistance Team (ESAT) has been tasked to evaluate laboratory reported data for the purpose of usability.

NOTES

No positive results were reported at a concentration below the Reporting Limit (RL) in this samples set.

Method blanks associated with the samples in this SDG were free from contamination.

Accuracy and precision criteria were met by the laboratory in the initial and continuing calibration verification standard analyses associated with the samples in this SDG.

Percent recoveries for target analytes in Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) analysis were within control limits. No data were qualified based on this finding.

Percent recoveries and Relative Percent Differences (RPDs) for target analytes in Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses were within control limits except for 2-chloroethyl vinyl ether RPD. The spiked sample was not a sample of this SDG. No data were qualified based on these findings.

Sample AP-061016-WS-011 was initially analyzed at a five-fold (5X) dilution due to sample foaming at the time of purging during the initial analysis of this sample. The RLs are elevated in this sample due to this dilution.

Manual integrations were performed and identified by the laboratory. A subset of these were evaluated by the reviewer, and were found to be accurate and consistent. No action was taken by the reviewer based on manual integrations.

No Tentatively Identified Compounds (TICs) were identified by the laboratory for the samples in this SDG.

Glossary of Data Qualifier Codes (ORGANIC)

- | | |
|----|---|
| U | The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method. |
| J | The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL). |
| B | The result is presumed a blank contaminant. This qualifier is used only for drinking water samples. |
| J+ | The result is an estimated quantity, but the result may be biased high. |
| J- | The result is an estimated quantity, but the result may be biased low. |
| NJ | The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. |
| UJ | The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise. |
| R | The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample. |
| C | This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS). |
| X | This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful. |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-115398-1
 SDG No.: _____
 Client Sample ID: AP-061016-WS-011 Lab Sample ID: 460-115398-1
 Matrix: Water Lab File ID: O11348.D
 Analysis Method: 624 Date Collected: 06/10/2016 14:45
 Sample wt/vol: 5(mL) Date Analyzed: 06/17/2016 13:27
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 374236 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	1.1
75-01-4	Vinyl chloride	5.0	U	5.0	0.30
74-83-9	Bromomethane	5.0	U	5.0	0.90
75-00-3	Chloroethane	5.0	U	5.0	1.9
75-35-4	1,1-Dichloroethene	5.0	U	5.0	1.7
75-09-2	Methylene Chloride	5.0	U	5.0	1.1
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.90
75-69-4	Trichlorofluoromethane	5.0	U	5.0	0.75
75-34-3	1,1-Dichloroethane	5.0	U	5.0	1.2
67-66-3	Chloroform	5.0	U	5.0	1.1
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	1.4
56-23-5	Carbon tetrachloride	5.0	U	5.0	1.7
107-06-2	1,2-Dichloroethane	5.0	U	5.0	1.3
71-43-2	Benzene	5.0	U	5.0	0.45
79-01-6	Trichloroethene	5.0	U	5.0	1.1
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.90
75-27-4	Bromodichloromethane	5.0	U	5.0	0.75
110-75-8	2-Chloroethyl vinyl ether	5.0	U	5.0	0.85
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.80
108-88-3	Toluene	5.0	U	5.0	1.3
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.95
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.40
127-18-4	Tetrachloroethene	5.0	U	5.0	0.60
124-48-1	Dibromochloromethane	5.0	U	5.0	1.1
100-41-4	Ethylbenzene	5.0	U	5.0	1.5
75-25-2	Bromoform	5.0	U	5.0	0.90
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.95
108-90-7	Chlorobenzene	5.0	U	5.0	1.2
179601-23-1	m-Xylene & p-Xylene	5.0	U	5.0	1.4
95-47-6	o-Xylene	5.0	U	5.0	1.6
1330-20-7	Xylenes, Total	10	U	10	1.4
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	1.7
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	1.7
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	1.1

DJ
8/6/16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-115398-1
 SDG No.: _____
 Client Sample ID: AP-061016-WS-011 Lab Sample ID: 460-115398-1
 Matrix: Water Lab File ID: O11348.D
 Analysis Method: 624 Date Collected: 06/10/2016 14:45
 Sample wt/vol: 5 (mL) Date Analyzed: 06/17/2016 13:27
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 374236 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		70-134
2037-26-5	Toluene-d8 (Surr)	99		70-125
460-00-4	Bromofluorobenzene	94		47-131
1868-53-7	Dibromofluoromethane (Surr)	90		75-126

FORM I
 GC/MS VOA ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Edison Job No.: 460-115398-1
 SDG No.: _____
 Client Sample ID: AP-061016-WS-011 Lab Sample ID: 460-115398-1
 Matrix: Water Lab File ID: 011348.D
 Analysis Method: 624 Date Collected: 06/10/2016 14:45
 Sample wt/vol: 5(mL) Date Analyzed: 06/17/2016 13:27
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 374236 Units: ug/L
 Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-115398-1
 SDG No.: _____
 Client Sample ID: AP-061016-WS-012 Lab Sample ID: 460-115398-2
 Matrix: Water Lab File ID: A22955.D
 Analysis Method: 624 Date Collected: 06/10/2016 13:40
 Sample wt/vol: 5 (mL) Date Analyzed: 06/16/2016 16:58
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: Rtx-624 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 373929 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.22
75-01-4	Vinyl chloride	1.0	U	1.0	0.060
74-83-9	Bromomethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.37
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.34
75-09-2	Methylene Chloride	3.0	U	1.0	0.21
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.18
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.15
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.24
67-66-3	Chloroform	1.0	U	1.0	0.22
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.33
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
71-43-2	Benzene	1.0	U	1.0	0.090
79-01-6	Trichloroethene	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
110-75-8	2-Chloroethyl vinyl ether	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.16
108-88-3	Toluene	1.0	U	1.0	0.25
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.080
127-18-4	Tetrachloroethene	1.0	U	1.0	0.12
124-48-1	Dibromochloromethane	1.0	U	1.0	0.22
100-41-4	Ethylbenzene	1.0	U	1.0	0.30
75-25-2	Bromoform	1.0	U	1.0	0.18
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19
108-90-7	Chlorobenzene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	1.0	U	1.0	0.28
95-47-6	o-Xylene	1.0	U	1.0	0.32
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.33
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.33
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.22

Handwritten signature/initials

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-115398-1
 SDG No.: _____
 Client Sample ID: AP-061016-WS-012 Lab Sample ID: 460-115398-2
 Matrix: Water Lab File ID: A22955.D
 Analysis Method: 624 Date Collected: 06/10/2016 13:40
 Sample wt/vol: 5 (mL) Date Analyzed: 06/16/2016 16:58
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: Rtx-624 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 373929 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	74		70-134
2037-26-5	Toluene-d8 (Surr)	92		70-125
460-00-4	Bromofluorobenzene	108		47-131
1868-53-7	Dibromofluoromethane (Surr)	101		75-126

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Edison Job No.: 460-115398-1
 SDG No.: _____
 Client Sample ID: AP-061016-WS-012 Lab Sample ID: 460-115398-2
 Matrix: Water Lab File ID: A22955.D
 Analysis Method: 624 Date Collected: 06/10/2016 13:40
 Sample wt/vol: 5(mL) Date Analyzed: 06/16/2016 16:58
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: Rtx-624 ID: 0.25(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 373929 Units: ug/L
 Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-115398-1
 SDG No.: _____
 Client Sample ID: AP-061016-WS-013 Lab Sample ID: 460-115398-3
 Matrix: Water Lab File ID: A22956.D
 Analysis Method: 624 Date Collected: 06/10/2016 14:00
 Sample wt/vol: 5 (mL) Date Analyzed: 06/16/2016 17:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: Rtx-624 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 373929 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.22
75-01-4	Vinyl chloride	1.0	U	1.0	0.060
74-83-9	Bromomethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.37
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.34
75-09-2	Methylene Chloride	1.7	U	1.0	0.21
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.18
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.15
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.24
67-66-3	Chloroform	1.0	U	1.0	0.22
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.33
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
71-43-2	Benzene	1.0	U	1.0	0.090
79-01-6	Trichloroethene	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
110-75-8	2-Chloroethyl vinyl ether	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.16
108-88-3	Toluene	1.0	U	1.0	0.25
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.080
127-18-4	Tetrachloroethene	1.0	U	1.0	0.12
124-48-1	Dibromochloromethane	1.0	U	1.0	0.22
100-41-4	Ethylbenzene	1.0	U	1.0	0.30
75-25-2	Bromoform	1.0	U	1.0	0.18
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19
108-90-7	Chlorobenzene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	1.0	U	1.0	0.28
95-47-6	o-Xylene	1.0	U	1.0	0.32
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.33
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.33
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.22

DD
7/6/16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-115398-1
 SDG No.: _____
 Client Sample ID: AP-061016-WS-013 Lab Sample ID: 460-115398-3
 Matrix: Water Lab File ID: A22956.D
 Analysis Method: 624 Date Collected: 06/10/2016 14:00
 Sample wt/vol: 5(mL) Date Analyzed: 06/16/2016 17:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: Rtx-624 ID: 0.25(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 373929 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	74		70-134
2037-26-5	Toluene-d8 (Surr)	91		70-125
460-00-4	Bromofluorobenzene	106		47-131
1868-53-7	Dibromofluoromethane (Surr)	102		75-126

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Edison Job No.: 460-115398-1
 SDG No.: _____
 Client Sample ID: AP-061016-WS-013 Lab Sample ID: 460-115398-3
 Matrix: Water Lab File ID: A22956.D
 Analysis Method: 624 Date Collected: 06/10/2016 14:00
 Sample wt/vol: 5 (mL) Date Analyzed: 06/16/2016 17:20
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: Rtx-624 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 373929 Units: ug/L
 Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	